

June 10, 2002

Mr. Dan Hirsch, Director of Operations
Dalton Corporation, Kendallville Manufacturing Facility
200 West Ohio Street
Kendallville, IN 46755

Dear Mr. Hirsch:

Re: Exempt Construction and Operation Status,
113-15626-00004

The application from Dalton Corporation, Kendallville Manufacturing Facility, received on May 14, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following afterburner operation, to be located at 200 West Ohio Street, Kendallville, Indiana, is classified as exempt from air pollution permit requirements:

Two (2) natural gas afterburners with a maximum capacity of 5.0 MMBTU per hour each to be added to the existing cupola furnace to control CO emission.

State Rule Applicability - Entire Source

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

326 IAC 9-1 (Carbon Monoxide Emission Limits)

Pursuant to 326 IAC 9-1, the two afterburners for CO control shall be in operation and control emissions from the cupola at all times that the cupola is in operation and during startup of the cupola.

Compliance Monitoring Requirements

326 IAC 2-7-6(1) (Temperature Monitoring)

The permittee shall record the operating temperature of the afterburners at least once per shift when the cupola is in operation. Unless operated under conditions for which the Preventative Maintenance Plan specifies otherwise, the afterburner temperatures shall be maintained at a minimum of 1400 degrees F or a minimum temperature established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the temperature is below the above mentioned minimum for any one reading.

This existing source has submitted their Part 70 application (T113-6491-00004) on August 30, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Any change or modification which may increase the potential PM emissions to five (5) tons per year or more, or VOC emissions to ten (10) tons per year or more, from the equipment covered in this exemption must be approved by the Office of Air Quality (OAQ) before such change may occur.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

JF/EVP

cc: File - Noble County
Noble County Health Department
Air Compliance - Dick Sekula
Permit Tracking - Lisa Lawrence
Air Programs Section- Michelle Boner
Part 70 Application File - T113-6491-00004
Part 70 Reviewer - Nisha Sizemore

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exempted Unit

Source Background and Description

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Location:	200 West Ohio Street, Kendallville, Indiana 46755
County:	Noble
SIC Code:	3321
Operation Permit No.:	T113-6491-00004
Operating Permit Issuance Date:	still pending
Exemption No:	113-15626-00004
Permit Reviewer:	James Farrell / EVP

The Office of Air Quality (OAQ) has reviewed an application from Dalton Corporation, Kendallville Manufacturing Facility relating to the construction and operation of:

Two (2) natural gas afterburners with a maximum capacity of 5.0 MMBTU per hour each to be added to the existing cupola furnace to control CO emission.

History

On May 14, 2002, Dalton Corporation - Kendallville Manufacturing Facility submitted application to the OAQ requesting to add two (2) natural gas afterburners to the existing cupola furnace to control CO emission. An application for a Part 70 permit (T113-6491-00004) for the existing source was received on August 30, 1996 and is currently being reviewed by IDEM.

New Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Two (2) natural gas afterburners with a maximum capacity of 5.0 MMBTU per hour each to be added to the existing cupola furnace to control CO emission.

Enforcement Issue

The source has the following enforcement actions pending:

- (1) A notice of violation was issued to the source on October 29, 1999 for alleged violations of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) and 326 IAC 8-1-6 (BACT). (Case # 2001-3321A)
- (2) A notice of violation was issued on March 6, 2002 for alleged fugitive dust violations on October 11 and 24, 2000 and January 9, 2001. (Case # 2001-11055A)

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on May 14, 2002.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (two (2) pages).

Potential To Emit (of Revision) Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	0.0832
PM-10	0.3329
SO ₂	0.0263
VOC	0.2409
CO	3.6792
NO _x	4.3800

HAPs	Potential To Emit (tons/year)
Organics	
Benzene	0.00009198
Dichlorobenzene	0.00005256
Formaldehyde	0.00328500
Hexane	0.07884000
Toluene	0.00014890
Metals	
Lead	0.00002190
Cadmium	0.00004818
Chromium	0.00006132
Manganese	0.00001664
Nickle	0.00009198
TOTAL	0.08265846

- (a) The potential to emit of all the regulated pollutants for this modification at the source is lower than the registration applicability thresholds stated in 326 IAC 2-7-10.5(d)(4). Therefore, pursuant to 326 IAC 2-1.1-3(d)(3), this is an exempt unit.

County Attainment Status

The source is located in Noble County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Noble County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Noble County has been classified as attainment or unclassifiable for PM-10, SO₂, Ozone, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	greater than 100
PM10	greater than 100
SO ₂	greater than 100
VOC	greater than 100
CO	greater than 100
NO _x	greater than 100

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or greater.
- (b) These emissions were based upon the TSD for Permit # 113-12446-00004.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T113-6491-00004) application on August 30, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this unit.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61 and Part 63) applicable to this unit.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM, PM-10, SO₂, CO, VOC and NO_x. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

The requirement to reduce VOC emissions using the Best Available Control Technology (BACT) does not apply to this unit because VOC emissions are less than twenty-five (25) tons per year.

No other Article 8 rules apply.

326 IAC 9-1 (Carbon Monoxide Emission Limits)

Pursuant to 326 IAC 9-1, the two afterburners for CO control shall be in operation and control emissions from the cupola at all times that the cupola is in operation and during startup of the cupola.

Compliance Monitoring Requirements

326 IAC 2-7-6(1) (Temperature Monitoring)

The permittee shall record the operating temperature of the afterburners at least once per shift when the cupola is in operation. Unless operated under conditions for which the Preventative Maintenance Plan specifies otherwise, the afterburner temperatures shall be maintained at a minimum of 1400 degrees F or a minimum temperature established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the temperature is below the above mentioned minimum for any one reading.

Conclusion

The construction and operation of the two (2) afterburners shall be subject to the conditions of the attached proposed **Exemption 113-15626-00004**.

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****Company Name: Dalton Corporation Kendallville Manufacturing Facility****Address City IN Zip: 200 West Ohio Street, Kendallville, IN 46755****CP: 15626****Plt ID: 113-0004****Reviewer: James Farrell****Date: 05/28/02**Heat Input Capacity
MMBtu/hrPotential Throughput
MMCF/yr

10.0

87.6

Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.1	0.3	0.0	4.4	0.2	3.7

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

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updated 4/99

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: Dalton Corporation Kendallville Manufacturing Facility****Address City IN Zip: 200 West Ohio Street, Kendallville, IN 46755****CP: 15626****Plt ID: 113-0004****Reviewer: James Farrell****Date: 05/28/02****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.198E-05	5.256E-05	3.285E-03	7.884E-02	1.489E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.190E-05	4.818E-05	6.132E-05	1.664E-05	9.198E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.